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ABSTRACT

The District of Columbia Public Schools initiated a multiyear planning process in 1983. Among other activities, the process calls for the computerized monitoring of the critical tasks of each of the district's major offices. These tasks, defined by the offices, are designed to facilitate the achievement of specific objectives designated in the district's master plan. Aspects of each task identified in the monitoring system include the objectives toward which the task is aimed, the unit responsible, a description of the task, estimated completion dates, policy consideration, monitoring and evaluating processes to be applied, and relevant comments. The information on each task is updated quarterly, providing a current overview of progress toward objectives districtwide. Samples of the system's output from different stages in its development are provided. (PGD)

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DISTRICT OF COLUMBIA PUBLIC SCHOOLS

Division of Program Development and Planning

1985

DEVELOPMENT OF COMPUTERIZED MONITORING OF EDUCATION PLANS

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Historical Background:

Development of the Multi-Year Education Plan (5 years)

A Comprehensive Multi-Year Education Plan, for SY 1983-87 was developed for the District of Columbia Public Schools. The planning process for the plan was initiated in fall 1982 with a draft completed by December 1982, and was the subject of intense review and discussion by the Superintendent and the Executive Council at a planning retreat in spring 1983. Revisions in the plan, including the development of an Executive Summary, were completed in March. Work on the Annual Plan for SY 1983-84 was initiated in April 1983 and was ready for dissemination at the Superintendent's Summer Conference for Administrators and Supervisors held at Georgetown University on August 24-25, 1983.

EA 017 672

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The major components of the multi-year plan are: 1) Context for Educational Planning which includes the Mission, Philosophy, Goals of the Board of Education, the Superintendent's Priority Areas, the General Statement of Long Range Objectives, Desired Learning Outcomes, Results of the Spring 1980-82 Comprehensive Tests of Basic Skills, Systemwide Targets for Student Achievement, Evaluation of the Competency-Based Curriculum and the Student Progress Plan, Planning Assumptions, Resources and Constraints, Population Trends, and the Economy and Employment Opportunities; 2) The Planning Process in the District of Columbia including a Flow Chart of the Planning Process and Organizational Chart; 3) Multi-Year Education Plans SY 1983-87 for the Offices of the Superintendent, the Deputy Superintendent, Instruction, Special Services and State Affairs, Management Services, Financial Management, Data Systems and Planning; 4) Facilities Component; 5) Monitoring, and 6) Appendices. Each component of the multi-year plan, while able to stand alone, is appropriately reflected in the multi-year plans of each major office and the Facilities Component.

Planning in the District of Columbia Public Schools is a process which begins with a common context for planning described previously. The common context, especially the Superintendent's priority areas and long range objectives, guides the individual activities of all school units so that they work together harmoniously as a whole--with the sum being greater than the parts. This is brought about by striving to achieve the same objectives with the same philosophical purpose in mind. With the process facilitated by the Division of Program Development and Planning, the major offices plan their year's activities to address the established priority areas and objectives. After approval by the Superintendent, the major offices continue to implement their plans, initiating corrective action as needed.

Computerized Monitoring of Critical Tasks

Education Plans for each school year are prepared by each of the major offices. Following an initial briefing, each office plans its activities to address the Mission, the Superintendent's General Objectives (SGO), and Long Range Objectives (LRO) as given in the Comprehensive Multi-Year Education Plan for SY 1983-87. Data entry for each Intermediate Objective number for the SY 1983-84 plan inputs the Critical Tasks, Responsible Unit, Completion Dates, and Indicators of Achievement. (See Exhibit A.)

Prior to SY 1983-84, monitoring was primarily a manual process largely defined by the individual offices, including the design and development of instruments to collect and manage information received from subordinate organizational units. This approach proved to be time consuming, lacking in uniformity and systemwide coordination, and, because of the large number of critical tasks, very difficult to monitor and report on in a timely fashion.

Beginning in October 1983, the Division of Program Development and Planning, in cooperation with the Division of Information Resource Management (DIRM), began discussions about specifications for the development of an automated system to monitor the SY 1983-84 Annual Plan. By the end of January 1984, DIRM had created an automated system facilitated by a computer data base system called MAPPER (Maintaining, Preparing and Producing Executive Reports). The format for the SY 1983-84 automated system included the following plan components: The Intermediate Objective Number, Responsible Unit, Planned End Date, Revised End Date, Actual End Date, Status Code, Critical Task Number, Critical Task, and Comments. (See Exhibit B.)

EXHIBIT A

SY 1983-84 PLAN FORMAT

03

FIVE YEAR PLAN SGO REFERENCE NO.	STATUS OF LRO AS OF 6/1/83	LONG-RANGE OBJECTIVE: Design a Multi-Year Plan for SY 1983-87; and update the Multi-Year Plan on an annual basis.
III.A.	P	1984 Intermediate Objectives Reference Numbers: III.A.1.; III.A.2.; III.A.3.; III.A.4.

04

INTERMEDIATE OBJECTIVE NUMBER	CRITICAL TASKS	RESPONSIBLE UNIT	COMPLETION DATE	INDICATORS
III.A.1.	1. Identify required changes in planning process for SY 1984-85 Annual Plan;	Division of Program Development	10/83	Draft of modified process
	2. Review monitoring data on SY 1983-84 Annual Plan;	Division of Program Development	2/84 - 6/84	Monitoring review report
	3. Update/develop planning process materials necessary for SY 1984-85 Annual Plan;	Division of Program Development	3/84	Revised planning process/ materials
	4. Provide guidance/technical assistance in the development of Office SY 1984-85 annual plans;	Division of Program Development	4/84	Orientation meeting(s); Documentation of assistance rendered
	5. Consolidate Office SY 1984-85 annual plans;	Division of Program Development	5/84	Draft Annual Plan
	6. Refine/edit SY 1984-85 Annual Plan;	Division of Program Development	7/84	Final Plan
	7. Coordinate with Procurement Branch to print the Annual Plan;	Division of Program Development	7/84	Printed Plan
	8. Conduct briefing sessions on SY 1984-85 Annual Plan;	Division of Program Development	7/84	Briefing session agenda(s)
	9. Provide the Communications Branch with copies of the SY 1984-85 Annual Plan for dissemination.	Division of Program Development	7/84	Transmittal memoranda to Communications office

LRO Status Code: P = In Planning I = Implemented N I = Not Implemented

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EXHIBIT B

SY 1983-84 MONITORING FORMAT

*** DCPS MAPPLR SYSTEM - DIVISION OF INFORMATION RESOURCE MANAGEMENT ***

.DATE 01 OCT 84 08:36:47 RID 4 29 FEB 84 KLS-OIN
. EDUCATION PLAN 83-84 - OFFICE OF INSTRUCTION C000164

*INTR OBJ NO	RESPONSIBLE UNIT	PLANND END DATE	REVISE END DATE	ACTUAL END DATE	CR. S.TK. C.NO.	CRITICAL TASK	COMMENTS
3A1	PROGRAM DEV	831031		831231	C 1	IDENTIFY REQUIRED CHANGES IN PLANNING PROCESS FOR SY 1984/85 ANNUAL PLAN;	
3A2	PROGRAM DEV	001234	841231		O 2	REVIEW MONITORING DATA ON SY 1983-84 ANNUAL PLAN;	
3A3	PROGRAM DEV	840331		840210	C 3	UPDATE/DEVELOP PLANNING PROCESS MATERIALS NECESSARY FOR SY 1984-85 ANNUAL...	
3A4	PROGRAM DEV	840430		840630	C 4	PROVIDE GUIDANCE/TECHNICAL ASSISTANCE IN THE DEVELOPMENT OF OFFICE SY 1984/..	
3A5	PROGRAM DEV	840531		840630	C 5	CONSOLIDATE OFFICE SY 1984-85 ANNUAL PLANS;	
3A5	PROGRAM DEV	840731		840630	C 6	REFINE/EDIT SY 1984-85 ANNUAL PLAN;	
3A5	PROGRAM DEV	840731		840630	C 7	COORDINATE WITH PROCUREMENT BRANCH TO PRINT THE ANNUAL PLAN;	
3A5	PROGRAM DEV	840731			D 8	CONDUCT BRIEFING SESSIONS ON SY 1984-85 ANNUAL PLAN;	BRIEFING SESSIONS TO BE PROVIDED AS REQUESTED
3A5	PROGRAM DEV	840731			D 9	PROVIDE THE COMMUNICATIONS BRANCH WITH COPIES OF THE SY 1984-85 ANNUAL PLAN...	PLANS TO BE DISSEMINATED BY DIVISION OF PROGRAM DEVELOPMENT AND PLANNING
3A6	PROGRAM DEV	831031		831121	C 1	ESTABLISH THE RELATIONSHIP OF CLUSTER PLANNING TO THE COMPREHENSIVE...	11/21/83 LETTER FROM SUPT. TO CHAIR OF BLG COMMITTEE. DISCUSSION PAPER 9/11/83
3A6	PROGRAM DEV	831031			D 2	IDENTIFY DOCUMENTATION THAT MUST BE COMPLETED PRIOR TO DEVELOPMENT OF THE PLAN;	TO BE POSSIBLY INCLUDED IN 84-85 PLAN.
3A6	PROGRAM DEV	831130			D 3	OUTLINE TASKS ASSOCIATED WITH VARIOUS PHASES OF THE FACILITIES PLANNING PROCESS	TO BE POSSIBLY INCLUDED IN 84-85 PLAN.
3A6	PROGRAM DEV	831130			D 4	DEVELOP TIMEFRAME FOR COMPLETION OF SUPPORTIVE BASE DOCUMENTATION;	TO BE POSSIBLY INCLUDED IN 84-85 PLAN.
3A6	PROGRAM DEV	831231			D 5	ESTABLISH CONTACTS AND LINES OF COMMUNICATION WITH APPROPRIATE OFFICES...	TO BE POSSIBLY INCLUDED IN 84-85 PLAN.
3A6	PROGRAM DEV	831231			D 6	IDENTIFY ADMINISTRATIVE OFFICES THAT WILL HAVE INPUT OR MAJOR...	TO BE POSSIBLY INCLUDED IN 84-85 PLAN.
3A6	PROGRAM DEV	831231		831130	C 7	DEVELOP A STRATEGY FOR MAKING FACILITIES PLANNING A PROCESS THAT WILL...	SEVERAL COMPLETED. DISCUSSION P'S WARD NOTEBOOKS PLANNING WORKBOOKS. ONGOING.
3A6	PROGRAM DEV	840731			D 8	IDENTIFY MAJOR COMPONENTS OF THE COMPREH	TO BE POSSIBLY INCLUDED IN 84-85 PLAN.

*** DCPS MAPPLR SYSTEM - DIVISION OF INFORMATION RESOURCE MANAGEMENT *** DATE 101584 PAGE 8

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A comparison of the plan format (Exhibit A) and the monitoring format (Exhibit B) indicates several differences: 1) the display (arrangement) of the information on the page, 2) the existence of long range objective narrative and intermediate objective reference numbers, and 3) the substitution of "Comments" for "Indicators" in the monitoring report.

Printouts of the office education plans were sent to the major offices so that they could begin reviewing the status of critical tasks for the third quarter of SY 1983-84. Simultaneously, arrangements for training office personnel in the use of the MAPPER system and updating their office plans were made. Training took place on February 29 and March 1, 1984. MAPPER terminals were also installed in the offices to facilitate data entry. Using MAPPER, office personnel entered the status (completed, on schedule, behind schedule, deleted, etc.) of each critical task.

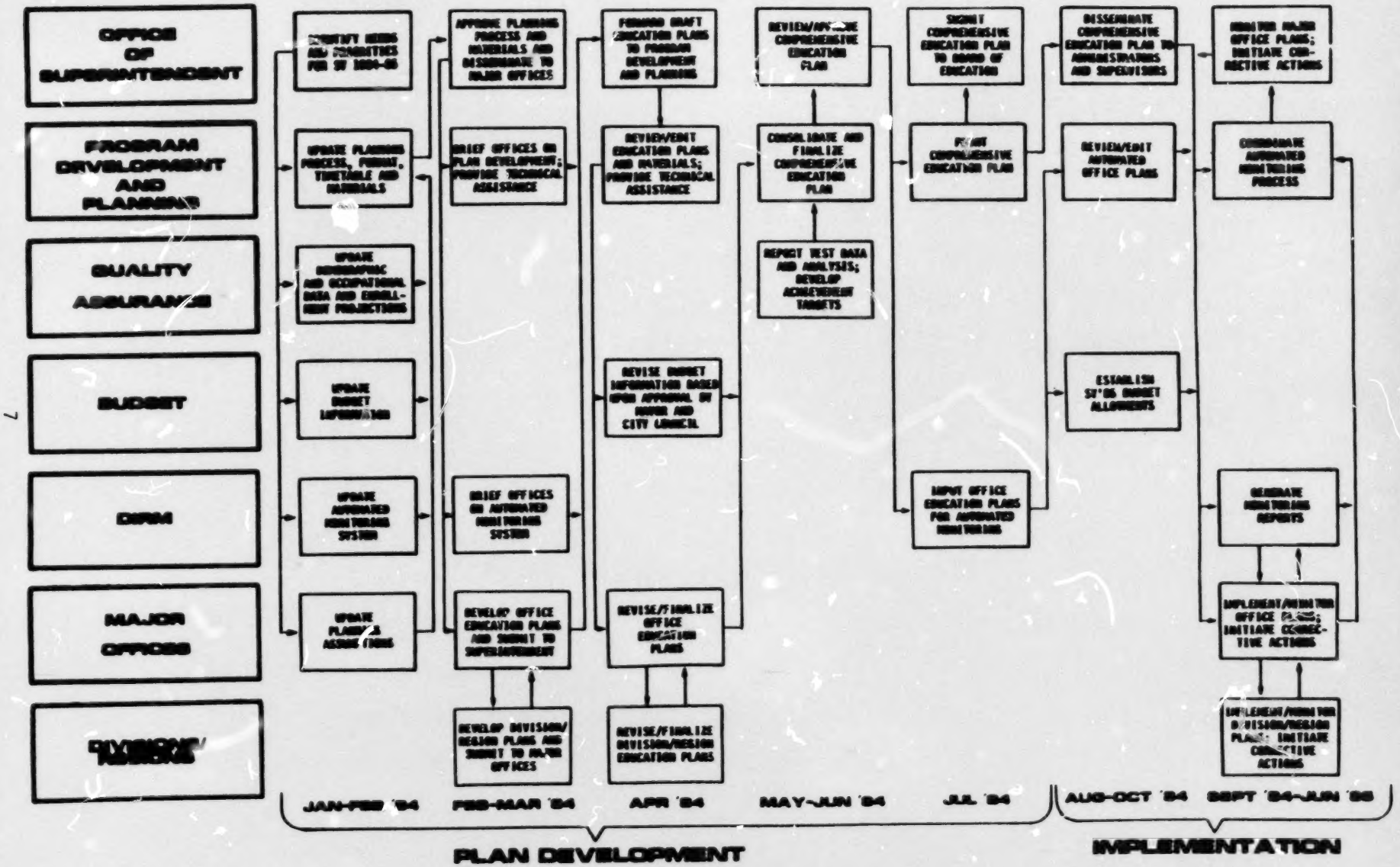
The successful establishment of an automated monitoring system and the close personal and supportive working relationship created through the orientation and training program and technical assistance services resulted in very positive responses from the offices and helped facilitate the next phase - computerizing the annual update.

Computerization of the Annual Update

Acceptance of the computerized monitoring process created a "demand" for the automation of the development of the SY 1984-85 Office Education Plans. The new system made possible the on-line entry, editing and/or revision of the office annual update and established a data base for the SY 1984-85 monitoring process. Exhibit C, " Planning Process, SY 1984-85", shows in graphic form the steps in the planning process including those steps involving the automated monitoring system.

EXHIBIT C

THE PLANNING PROCESS, SY 1984-85



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It should be noted that this process reflects planned activities. In practice, there were a few minor deviations from the planned process. One notable exception was the data entry of office education plans. Initially, it was anticipated that this process would be performed by the Division of Information Resource Management in July 1984, following the manual preparation of individual office plans. In fact, due to a speedup in system development for the SY 1984-85 plan, individual offices entered their plans directly in April-May, 1984.

The required training of representatives from each major office to input plans took place on April 4 and 6, 1984. Individual offices entered on-line the following plan components for SY 1984-85: mission, functions, long range and intermediate objectives, critical tasks, responsible units, estimated completion dates, indicators, new/revised policy considerations, and the proposed monitoring and evaluation processes. This expanded capability accommodated all components of the Office Education Plans whereas the initial monitoring system addressed only those elements related to the critical tasks. (See Exhibit D.)

An analysis of the final SY 1984-85 Comprehensive Education Plan revealed that the mission of the school system was supported by 6 Superintendent's Priority Areas, 24 Superintendent's General Objectives (SGO's), 94 Office Long Range Objectives (LRO's), 225 Intermediate Objectives (IO's), and over 4,000 Critical Tasks (CT's). These data underscore the need for an automated monitoring system.

EXHIBIT D

SAMPLE DATA ENTRY SCREEN FORMAT

COMPREHENSIVE EDUCATION PLAN 1984-1985

Office of the Deputy Superintendent

SGO	LRO	INTERMEDIATE OBJ. NUMBER	RESPONSIBLE UNIT	CRITICAL TASK NO.	PLANNED END DATE -yymmdd-
xx	x	[3A04]	[13H00]	[ ]	[ ]

CRITICAL TASK [This is a test of a critical task entry] - Upper & lower case
[item]
[ ]
[ ]

INDICATORS [ ] - Upper & lower case
[ ]
[ ]
[ ]

To Return to the MENU enter 'X' here ' '

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Refined Computerized Monitoring System

Monitoring of the Comprehensive Education Plan, SY 1984-85 is being accomplished through the implementation of an on-line computerized system developed by the Division of Program Development and Planning and the Division of Information Resource Management (DIRM). The system is used by offices to enter data on the status of critical tasks associated with each intermediate objective and to generate computerized reports on the progress toward the completion of critical tasks.

The automated monitoring system is facilitated by MAPPER which allows users to display the data on a CRT in many different ways to meet branch, divisional or office monitoring requirements. Each office with an appropriate computer terminal is able to input monitoring data and quickly generate computer printouts of the office monitoring report.

The mask below shows the computerized format (Exhibit E) with the elements to be updated quarterly:

MAPPER MASK

```
INTR  .        .PLANNED.REVISE.ACTUAL.S.S.S.S.
OBJ   .RESP    .END    .END   .END   .C.C.C.S.                    .
NO    .UNIT    .DATE   .DATE  .DATE  .1.2.3.4.NO.CRITICAL TASKS   .COMMENTS
======.========.=======.======.======.=.=.=.=.== ================.========
```

(1) (2) (3) (4)

The major areas to be updated each quarter include: 1) revised end date, 2) actual end date, 3) status code (S.C.) and/or 4) comments. The following guidelines govern the update function:

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EXHIBIT E

*** DCPS MAPPER SYSTEM - DIVISION OF INFORMATION RESOURCE MANAGEMENT *** DATE 010485 PAGE 1

115 LINE(S) FOUND OUT OF 2071 LINES

PROGRAM DEV

DATE 04 JAN 85 11:07:21 RID 4 19 NOV 84 RUM-OPD
MONITORING REPORT 84-85 - OFFICE OF INSTRUCTION B000102

INTR. OBJ.	RESP UNIT	PLANND DATE	REVISE DATE	ACTUAL DATE	C.S.C.S. 1	2	3	4	NO.	LONG RANGE OBJECTIVES/ INTERMEDIATE OBJECTIVES/CRITICAL TASKS	COMMENTS
1A09	PROGRAM DEV	001234							0	01 PROVIDE ASSISTANCE IN THE IMPLEMENTATION OF THE SECONDARY STUDENT PROGRESS PLAN IN THE 7TH GRADE.	CHECKLIST 10/30/84+ COORDINATION WITH DQA+ IJHSI AND SSPP
1A09	PROGRAM DEV	850628							0	02 IN COOPERATION WITH THE DIVISION OF QUALITY ASSURANCE, REVIEW FEEDBACK AND MONITORING RESULTS AND RECOMMEND APPROPRIATE REVISIONS TO SSPP.	MID SEMESTER MONITORING RESULTS TO BE REPORTED BY DQA 12/31/84; END-OF-YEAR REPORT TO BE DISSEMINATED 09/30/84
1B07	PROGRAM DEV	000012							0	04 REVIEW LITERATURE, NDN PROGRAMS AND ATTEND AWARENESS SESSIONS, CONFERENCES+ ETC. RELATED TO STATE-OF-THE-ART DEVELOPMENTS IN PRIORITY AREAS.	TGT+ PARENT INVOLVEMENT+ JOHNS HOPKINS+ PROJECT ENCOURAGEMENT+ SHAKESPEARE+ NATIONAL WRITING PROJECT+ WALBERG & BLOOM
1B07	PROGRAM DEV	000012							0	06 RECOMMEND EXEMPLARY PROGRAMS IN PRIORITY AREAS FOR POTENTIAL ADOPTION.	TGT+ PARENT INVOLVEMENT+ PROJECT ENCOURAGEMENT+ JOHNS HOPKINS
1B08	PROGRAM DEV	850628							0	07 DEVELOP/ADAPT/ADOPT NEW PROGRAMS FOR SYSTEMWIDE AND/OR LOCAL SCHOOL IMPLEMENTATION AS APPROPRIATE.	TGT+ JOHNS HOPKINS+ PROJECT ENCOURAGEMENT
1B08	PROGRAM DEV	000012							0	08 PROVIDE TECHNICAL ASSISTANCE TO REGIONS/ DIVISIONS AND LOCAL SCHOOLS CONTINUING EXEMPLARY PROGRAMS.	ACADEMIC LEARNING TIME
1B09	PROGRAM DEV	840731	840810	C					0	01 SECURE INPUT ON STATUS OF IJHSI AND RECOMMENDATIONS FROM REGIONAL OFFICES.	VERBAL FEEDBACK FROM PRINCIPALS ON VALUE OF PARENT BROCHURES+ NEW SHOT IN THE ARM+ RAISED TEST SCORES+ SUP'T MENTIONING IT+ MET WITH AFI'S
1B09	PROGRAM DEV	840731	840815	C					0	02 REVIEW JUNIOR HIGH SCHOOL TEST DATA.	MEMORANDUM ANALYZING SECONDARY STUDENT TEST SCORES
1B09	PROGRAM DEV	840831	841015	C					0	03 RECOMMEND IMPROVEMENTS IN THE OVERALL IJHSI PROGRAM.	SUBMITTED IJHSI AND SSPP TO SUPERINTENDENT

1. Revised End Date: When a task has not been completed, and the original planned end date must be revised for unforeseen reasons, a revised end date is entered with the approval of the appropriate Associate Superintendent. The revised end date then becomes the new projected completion date for that critical task.

2. Actual End Date: When a task has been completed, the date of completion is entered. Dates are written as 6-digit numbers in the sequence of year-month-day, i.e. February 28, 1985, is written 850228. The code for ongoing/quarterly tasks is 001234, and the code for ongoing/monthly is 000012. This feature permits the rapid retrieval of information according to the day or month due.

3. Status Code: For each critical task, one of the following codes is entered for each quarter:

   O -- if the task is on schedule and/or will be completed according to the original planned end date;

   B -- if the task is behind schedule;

   C -- if the task has been completed or is fully operational;

   A -- if the task is on target for completion ahead of the planned end date;

   D -- if the task is no longer applicable and therefore is deleted.

4. Comments: Explanatory comments are required in this column for tasks which are behind schedule or deleted.

The intermediate objective, responsible unit, planned end date, critical task number and intermediate objective/critical tasks columns represent data as they appear in the published document and are the "starting point" in the monitoring process.

Monitoring reports for SY 1984-85 Office Plans are due as follows:

Due Dates	Report Period
October 15, 1984	July 1 - September 30
January 15, 1985	October 1 - December 31
April 15, 1985	January 1 - March 31
July 15, 1985	April 1 - June 30

Monitoring of the annual plan: 1) provides documentation of the planning process, 2) provides an efficient and effective means for each office to report progress in implementing long range objectives and critical tasks, 3) supplies information to each responsible unit about its responsibilities, and 4) yields information needed by each office to identify quickly and accurately activities which are "off plan". Each office is responsible for monitoring its education plan each quarter. The Division of Program Development and Planning coordinates the process with DIRM to report to the Superintendent a quarterly summary of the status codes for each major office. The summary report includes:

- Total number of critical tasks;
- Number and percentage of critical tasks identified as "ongoing" (dates of 001234 or 000012);

- Number and percentage of tasks with each of the following status codes for (a) all critical tasks, (b) critical tasks which are not ongoing, and (c) ongoing critical tasks.

  O -- on schedule

  A -- ahead of schedule

  B -- behind schedule

  C -- completed/fully operational

  D -- deleted

- Number and percentage of tasks which have a revised end date which is a point in time later than the planned end date.

The automated monitoring and planning system is expected to assist in keeping planning and implementation on schedule and to assure interface and coordination of related activities.

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